

1 INTRODUCTION

1.1 *Plan Purpose*

This document provides a plan for the development of transportation facilities in and around Zionsville, Indiana over the next 25 years. The plan is based on an evaluation of community goals and anticipated 25-year transportation needs. This plan is intended to serve as a guide for public infrastructure and private development decisions by:

- Identifying short and long term transportation construction priorities
- Identifying right-of-way requirements for transportation facilities
- Anticipating future capital funding needs

As of January 1, 2010, the Town of Zionsville merged with the previously unincorporated areas of Eagle and Union Townships in Boone County. The coverage area for this plan includes the entirety of the consolidated Town of Zionsville. Most of the Town of Zionsville is located within the Indianapolis Metropolitan Planning Area (MPA). **Figure 1-1** shows the Indianapolis MPA and its relationship to Boone County. **Figure 1-2** shows the location of Zionsville within Boone County.

The development of this transportation plan has been funded through the Indianapolis Metropolitan Planning Organization (MPO). The Indianapolis MPO is the primary entity responsible for regional transportation planning within the Indianapolis region. The MPO helps to ensure that transportation planning in the Indianapolis Metropolitan Planning Area is coordinated among all responsible governments. MPO activities are guided and approved by the Indianapolis Regional Transportation Council, which is comprised of representatives from each of the affected local and state governments. This includes representation from the Town of Zionsville.

- Ford Road/Pleasant View Road north of SR 334
- 6th Street
- Starkey Road
- Bloor Lane
- 131st Street
- CR 700 E
- CR 550 S
- Holliday Road
- CR 200 S
- Cooper Road

A change in the federal urbanized area boundaries is anticipated due to the results of the 2010 Decennial Census. It would be appropriate for the Town of Zionsville to request review of the **existing** functional classification of these roads once the urbanized boundaries have been updated.

The Town of Zionsville should also consider future requests for review of its federal roadway functional classifications as land around Zionsville continues to develop. New developments and a growing population will continue to change the function of the existing road network. Roadway functional classifications in Zionsville are ultimately expected to reflect the proposed **future** classifications shown in the Thoroughfare Plan, **Figure 5-1**. Having its roads appropriately classified will allow Zionsville the most flexibility in seeking federal funding sources for capital improvements.

4.2 Travel Demand Forecasts

The 2030 travel demand forecasts developed by the Indianapolis MPO for the current Regional Transportation Plan are the best source of long-term travel demand information within the Indianapolis Metropolitan Planning Area. **Figure 4-2** shows the roadway segments in the Indianapolis region that the MPO anticipates will be congested by 2030 if only the currently committed roadway improvement projects are constructed. This map shows that Zionsville Road from 86th Street to SR 334 is expected to have high congestion. Several other roadway segments in Zionsville, including portions of Ford Road, CR 300 S, SR 334, US 421 and I-65 are also expected to have moderate congestion. Note that not all roadway segments are analyzed by the MPO for its regional planning purposes. Only the roads that are shown on the map are included in its travel demand modeling. The MPO's "committed" network included projects that were committed for funding by 2006. It did not include the current widening project on I-65, the anticipated widening of US 421 north of SR 334, or the connection of CR 300 S to CR 400 S and the I-65/SR 267 interchange.

Figure 4-3 shows the roadway segments in the Indianapolis region that the MPO anticipates will be congested by 2030 if all of the recommended road improvements included in its "cost-feasible" 2030 regional plan are constructed. This includes the projects identified in Section 1.3.1 of this document. This map shows high congestion only on a portion of US 421 north of SR 334 and moderate congestion on a portion of Zionsville Road. **The MPO travel demand modeling that produced the results shown in this figure assumed that additional lanes would be constructed on Zionsville Road between 96th Street and SR 334. However, this project was subsequently removed from the MPO's cost-feasible transportation plan, so forecast congestion on and near Zionsville Road is likely to be greater than what is shown.**

The Indianapolis MPO currently is working with an updated version of its regional travel demand model that extends the forecast horizon to 2035, which is the same horizon as the Zionsville Transportation Plan. Forecasts of congested roadway segments for 2035 have not yet been developed by the MPO. However, **Table 4-2** shows the forecast growth in trips to and from Zionsville between 2010 and 2035. This table shows trip ends, where each trip has two ends. A trip between Zionsville and an external location would therefore produce one trip end in Zionsville, while a trip within Zionsville would produce two trip ends in Zionsville. According to the MPO, travel demand in Zionsville is expected to grow by approximately 135% over the next 25 years. For comparison, travel demand growth in Zionsville was also forecast using the land use development forecasts identified in Section 2.3.2 and the methods of the Institute of Transportation Engineers *Trip Generation*. This yielded travel demand growth forecast that are approximately 15% higher due to slightly more aggressive land development assumptions.

5.1.2 Proposed Road Projects

5.1.2.1 I-865/Cooper Road Interchange Study

Construction of a new interchange at I-865 and Cooper Road was first identified as a congestion relief solution in the 1988 Zionsville Transportation Plan and was added to the Boone County Transportation Plan in 1998. This new interchange would provide an alternate access to the regional arterial system for existing and anticipated development west and northwest of the Zionsville Village. The interchange would reduce travel demand through the Village and along other major roads leading to the existing I-65/SR 334, I-465/US 421, and I-465/86th Street interchanges. Reducing congestion around existing interstate interchanges and in the Zionsville Village would improve local mobility and make these areas more viable for economic development. The new interchange could also relieve congestion on the Interstate system in the vicinity of the adjacent existing interchanges.

The primary purpose of the proposed Cooper Road interchange is to improve regional access, and from its inception, the Town has taken a position of avoiding development in the immediate vicinity of the interchange. Nevertheless, this type of development could be an unintended consequence of the interchange if it is not implemented properly. Other unintended consequences could include environmental impacts within Cooper Road corridor (north and south of I-865) and in the unique surrounding historic area, as well as the diversion of through traffic to the interchange from areas outside of the immediate Zionsville vicinity..

The Indiana Department of Transportation (INDOT) included the Cooper Road interchange in an evaluation of potential new interchanges for its 2007 Statewide Interchange Study. The evaluation concluded that there were no known fatal flaws to constructing the interchange and that it could provide **modest** regional benefits to traffic operation. However, the study noted that more evaluation would be required to determine benefits and impacts to the interchange. It also noted that the interchange should be included in the Long Range Transportation Plan for the region developed by the Indianapolis Metropolitan Planning Organization prior to consideration by INDOT.

The proposed Cooper Road interchange would provide diversion from existing congested routes and improve operations of nearby interchanges, but the level of this benefit has never been fully quantified. Likewise, the future level of service on alternate routes without the interchange has not been clearly defined. These evaluations require the application of a regional travel demand model, such as the one maintained by the Indianapolis MPO. That model is currently being refined and was not available for use at the time of this study.

In order to provide the information needed by the Town of Zionsville to make a fully informed decision, it is recommended that a special study be conducted to evaluate in detail the benefits and impacts of the potential I-865/Cooper Road interchange. Although the interchange has been in local plans for many years, it has never been studied in detail. This study should be structured to support a decision to either proceed with the project or remove it from the Transportation Plan. The study should include at least the following tasks:

- Identify future traffic conditions with:
 - No added capacity (to define potential problems)
 - Cooper Road interchange per current plan
 - Other system changes, instead of or with Cooper Road interchange as needed to address problems
- Review potential benefits and impacts to:
 - Zionsville “village” area
 - Rural area near Cooper Road, north/south of I-465
 - Regional roads: I-465, I-865, I-65, US 421, 86th St
- Review feasibility and potential effectiveness of protective zoning or land use regulations to protect the Cooper Road corridor from unwanted development
- Conduct a broad-based and inclusive process involving citizens, elected officials/staff, other agencies
- Evaluate potential interchange configurations to support traffic demand
- Evaluate the feasibility of project implementation
- Identify potential project funding and implementation steps

The Town of Zionsville should work with the Indianapolis Metropolitan Planning Organization (MPO) and INDOT to initiate this special study of the I-865/Cooper Road interchange. Construction of this interchange ultimately would need to be endorsed by the MPO and approved by INDOT and the Federal Highway Administration. It would also require subsequent preparation of a federally-required Interchange Justification Study and an environmental study in compliance with the National Environmental Policy Act of 1969 (NEPA).

Consistent with this recommendation, the Transportation Plan Map shows the Cooper Road interchange as “subject to further study.” No action should be taken to advance the project until the special study is complete and the Transportation Plan is modified.

5.1.2.2 Cooper Road reconstruction

If the I-865/Cooper Road interchange is constructed, the reconstruction of Cooper Road between I-865 and SR 334 would be completed concurrently so that the road would accommodate anticipated interchange traffic. This segment of Cooper Road would be reconstructed to meet Zionsville standards for a 2-lane secondary arterial. This recommendation and others related to Cooper Road should be revisited as part of the Cooper Road interchange study. **If the I-865/Cooper Road interchange is removed from the Transportation Plan the entire segment of Cooper Road south of SR 334 should be classified as a Collector.**

5.1.2.3 Cooper Road/CR 875 E connection

The extension of Cooper Road north of SR 334 would provide better regional connectivity for development north of SR 334 and west of Ford Road. This new road segment would be beneficial whether or not the Cooper Road interchange is constructed. The following two improvements are proposed as part of this project:

- Extend Cooper Road north of SR 334 as a 2-lane secondary arterial on new alignment to connect to CR 875 E at CR 550 S
- Upgrade existing CR 875 E between CR 550 S and Whitestown Road to meet Zionsville standards for a 2-lane secondary arterial

5.1.2.9 East-West Collector from Zionsville Road to Mayflower Park Drive

This new collector road segment would serve development south of 106th Street and east of Zionsville Road. The specific alignment of this road will depend on development plans and may be affected by the potential for a future commuter rail station near Zionsville Road.

5.1.2.10 CR 600 S extension

This project would extend CR 600 S westward on new alignment from its intersection with CR 900 E to the new Cooper Road extension, a distance of approximately 1650 feet. This road will serve as a 2-lane collector connecting Cooper Road to Ford Road, and the proposed improvement would eliminate two 90-degree turns along the route. The existing segments of CR 900 E and CR 575 S would remain as local roads.

5.1.2.11 CR 875 E realignment

This project would realign the jog from CR 875 E to CR 900 E that exists between CR 300 S and CR 200 S. As development continues in the northern and western portions of Zionsville, the connection of Cooper Road to CR 875 E and CR 900 E to provide a continuous north-south secondary arterial will become important for regional access. This realignment will eventually be necessary to improve the safety and capacity of this road segment.

5.1.2.12 CR 950 E realignment

This project would realign the segment of CR 950 E between CR 375 S and CR 400 S. This realignment would improve safety and provide a more continuous east-west arterial connection to serve continued growth south of CR 300 S.

5.1.2.13 Road Widening for Standards

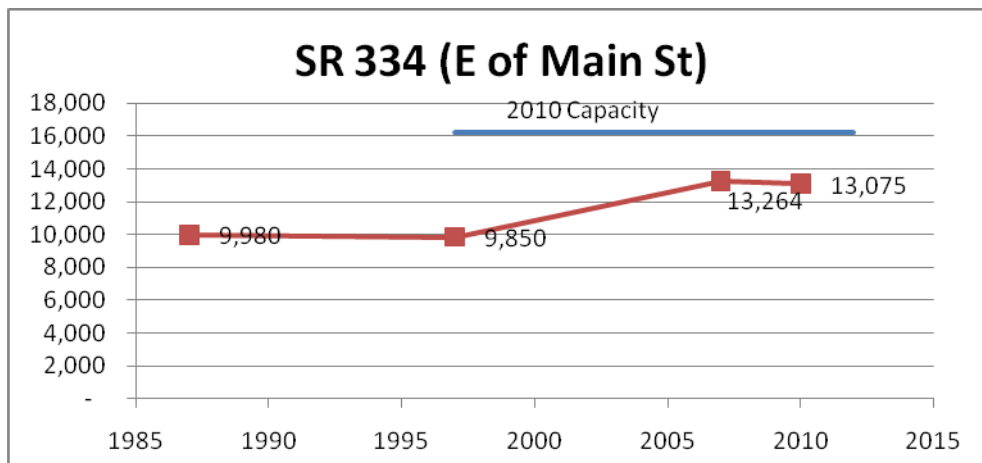
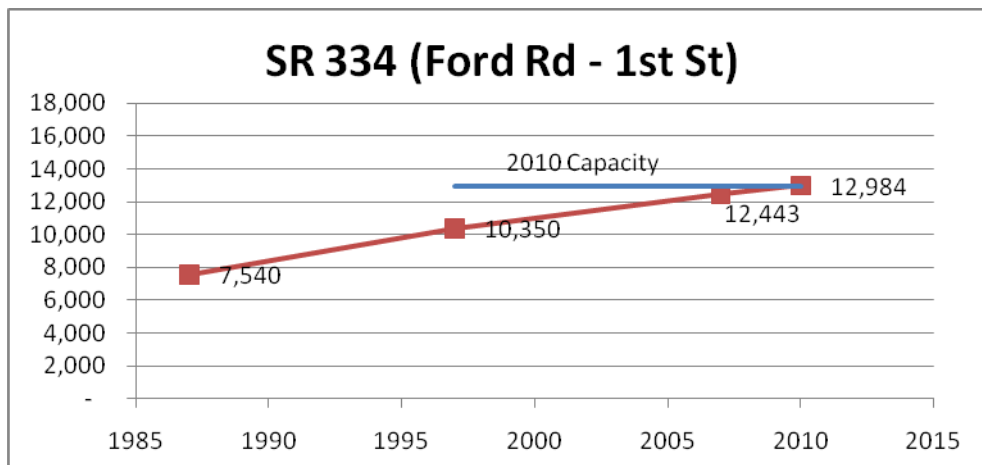
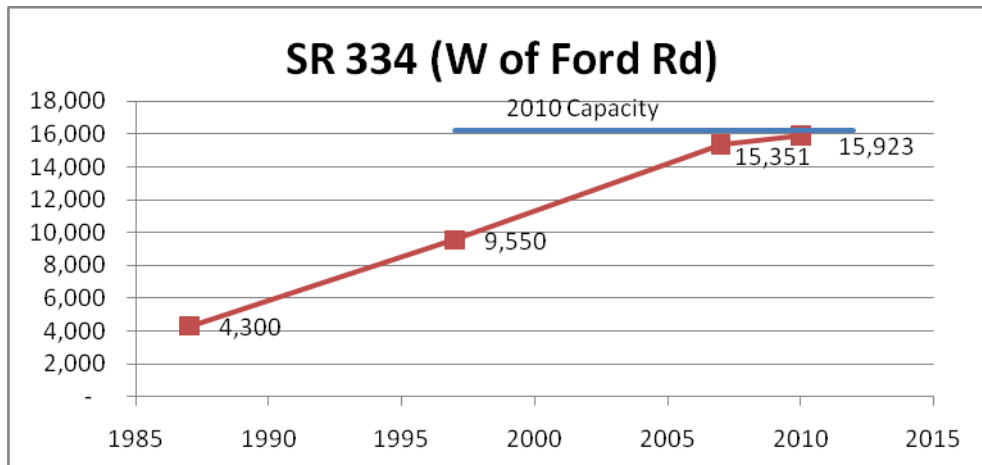
Many roads in Zionsville were not designed to meet modern standards. As traffic traffic volumes increase due to continued development, the narrow lanes and thin thin pavement on these roads will contribute to increased maintenance and safety safety concerns. These roads should be widened and resurfaced or reconstructed as funding allows and traffic volumes dictate. Several road segments within Zionsville's urban service area were specifically identified for widening in the Zionsville Traffic Impact Fee Study. Traffic volumes and pavement conditions on other roads in the recently incorporated areas of Zionsville should also be monitored to identify candidates for widening or reconstruction.

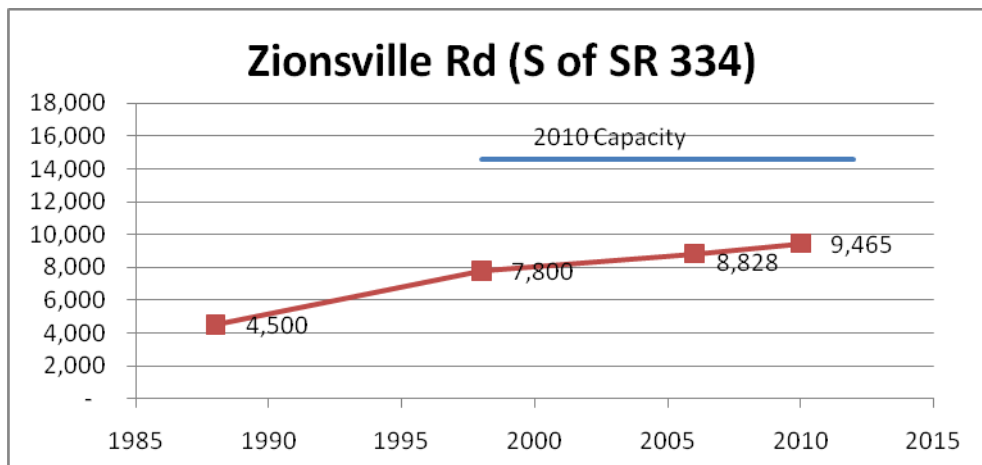
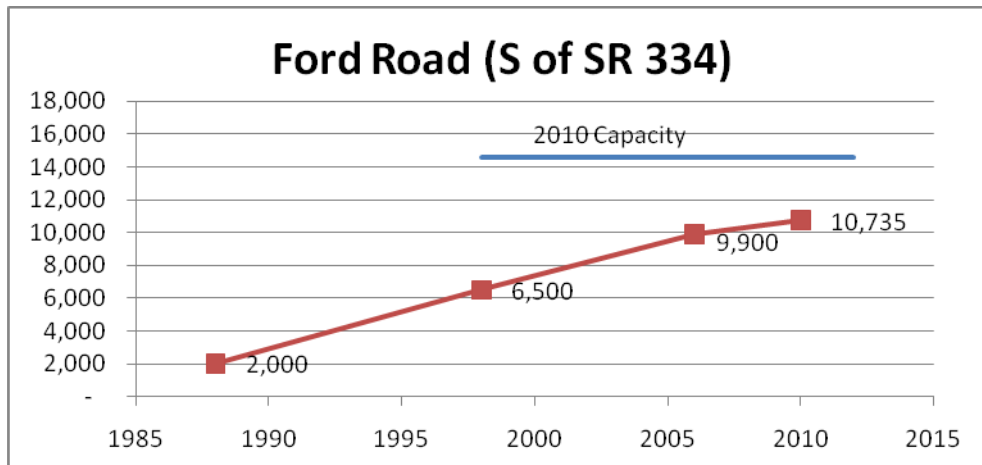
5.1.2.14 US 421 (Michigan Road) Widening

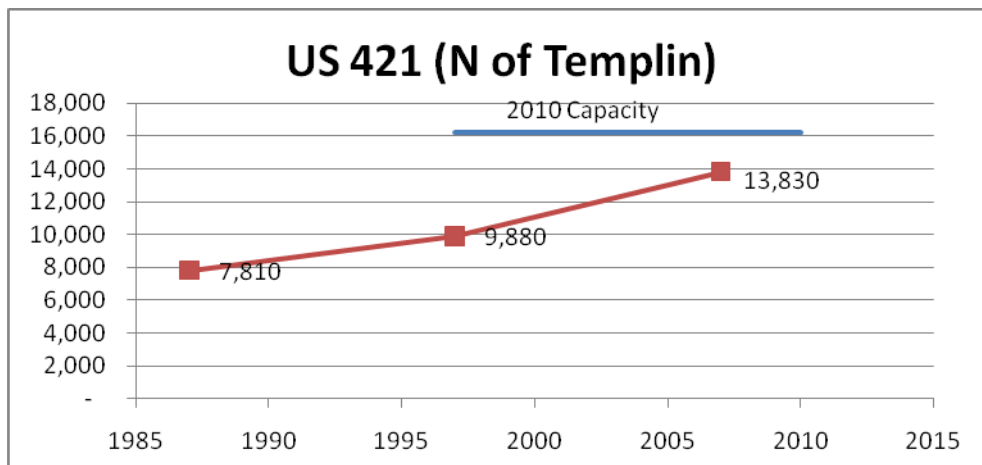
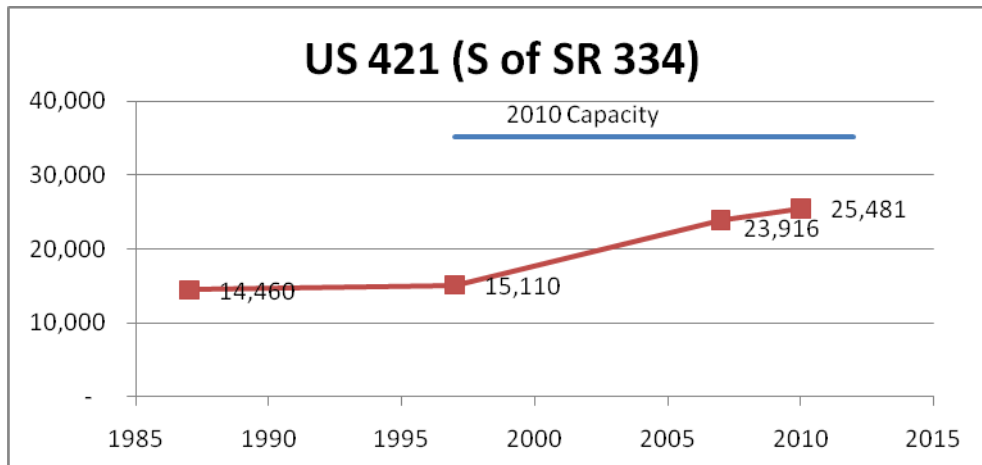
The Indiana Department of Transportation is currently planning to widen US 421 as far north as CR 300 S. The widened section would have 4 travel lanes and a median, curb and gutter with enclosed storm drainage, and adjacent shared-use paths. The segment of US 421 between CR 300 S and SR 32 is planned for reconstruction as a 2-lane road with shoulders and open ditch drainage. The Town of Zionsville supports the widening of US 421 south of CR 300 S to serve growing demand. An access management plan should be developed for US 421 and incorporated into the design of the widening project. This will help to preserve through travel capacity on the road as adjacent property is developed.

APPENDIX B

ZIONSVILLE TRAFFIC VOLUME TRENDS







Note: 2010 Capacity volumes were estimated using Table 1 of the 2009 Florida Department of Transportation Quality/Level of Service Handbook